



Yebelo Java Developer Assignment

<2 Hours>

Topic

Make a Rest API for the given requirement in Java.

Important:

Every 15 minutes, the code needs to be pushed to the Git. No excuse!

A video of the working system with commentary is required to be sent!

Assumptions

1. Availability of database

Requirements

2. The API FetchNextNumber shall take a CategoryCode as parameter in JSON
3. Search a table where CategoryCode and value are stored and fetch value. [No result shall be considered as 0 value]
4. Update the table with a number such that it is:
 - a. greater than the fetched Value
 - b. sum of the individual digits become 1 [for example if fetched number is 10, then the next number should be 19 as $1+9 = 10 \Rightarrow 1+0 = 1$]
 - c. the number is the smallest next available number
 - d. While calculating the next number, introduce a delay of 5 seconds overall to the minimum.[simulating other processing]
5. The return value is in JSON with OldValue and NewValue
6. API shall be simultaneously executed by multi users and the outcome should be unique.

Example System

Api: <http://localhost:8080/FetchNextNumber/> >> Fetches the available number and next number.

Non-Functional Features to Incorporate

1. Database data persistence so that even if the application is restarted the number is permanently stored.
4. Unit Testing for a robust system.

Git Usage

Project submission shall be done via pushing your codebase to Github.

1. Commit often with descriptive messages (we may look into your commit history).

Mandatory files of your github repo's root folder

1. Minimal usage guide and features implemented, as guide.txt file.
2. (Design/Architectural) (Patterns/decisions) used, as decisions.txt file.

Extensibility?

Any additional features implemented, should be clearly stated in guide.txt and will be added as bonus points for your project.

Checklist

- Diagrammed the database schema.
- Completed a minimal working model with documentation of the required features.
- Perform unit testing.
- Create and Push guide.txt
- Create and Push decisions.txt
- Upload and Push database_schema.png
- Work on adding more features if time permits.